PS1300C

USER'S MANUAL

MA17-02/C
09/11/2011

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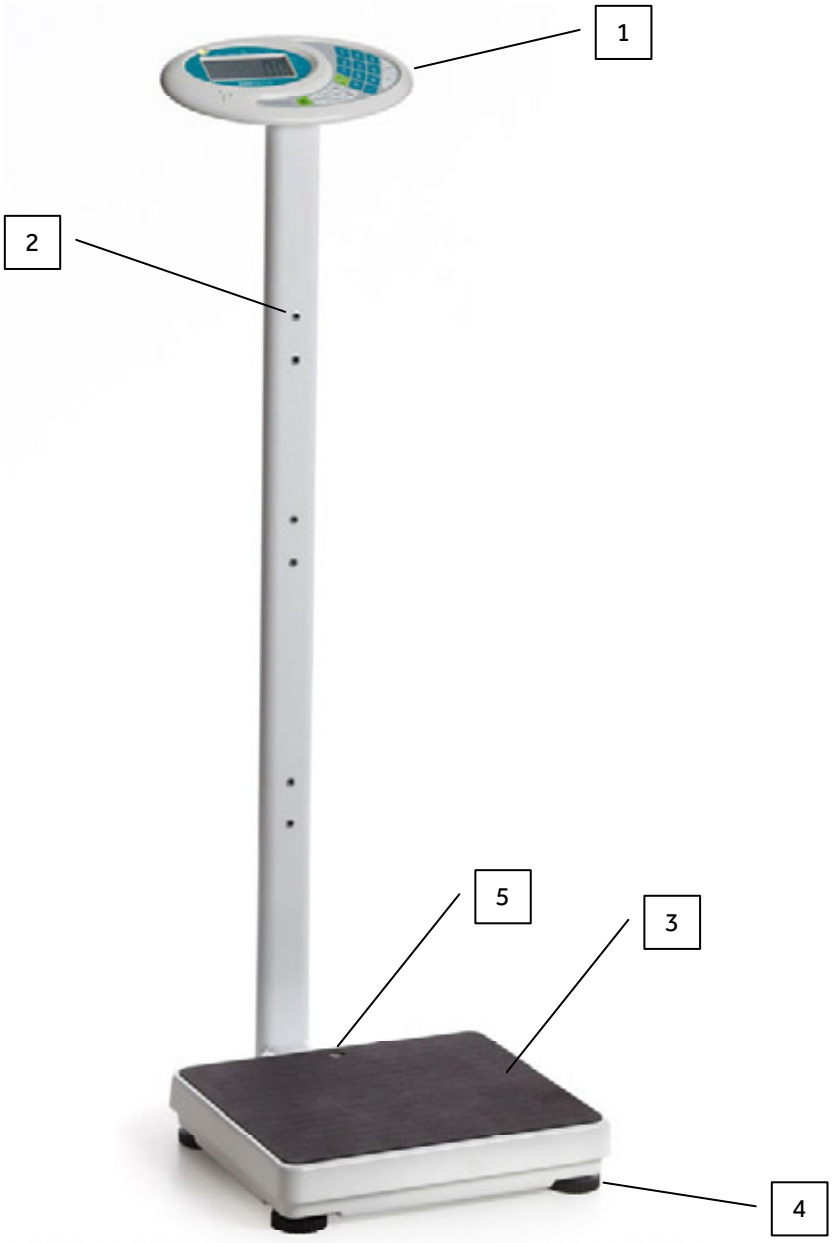
1. DESCRIPTION



(1) Display unit
(2) Mounting holes for height rod accessories
(3) Scale platform
(4) Adjustable feet
(5) Level

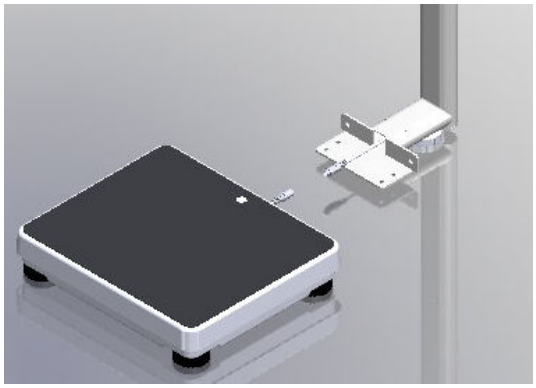
2. INSTALLATION

Before putting the device into use, please read with care the information given in the Operating Instructions. They contain important instructions for installation, proper use and maintenance of the device.

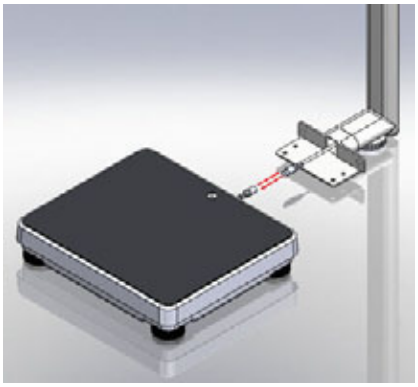
The manufacturer shall not be liable for damages arising out of failure to heed the following instructions:

- When using electrical components under increased safety requirements, always comply with the appropriate regulations.
- Improper installation will render the warranty null and void.
- Ensure the voltage marked on the power supply unit, matches your main power supply.
- This device is designed for use indoors.
- Observe the permissible ambient temperatures for use.
- The device meets the requirements for electromagnetic compatibility. Do not exceed the maximum values specified in the applicable standards.

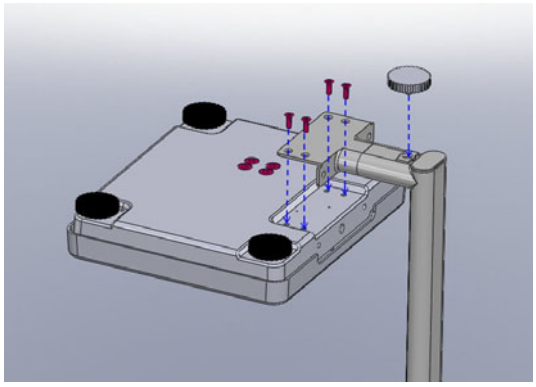
2.1. SCALE ASSEMBLY



1. Assembling column with base



2. Connecting wire between column and base



3. Tightening four screws at the bottom of base.
   Assembling is complete.

2.2. LOCATION AND SETTING

We strongly recommend you use this device on flat and hard surface. Any soft surface, like carpet will cause inaccuracy.

2.3. STARTUP

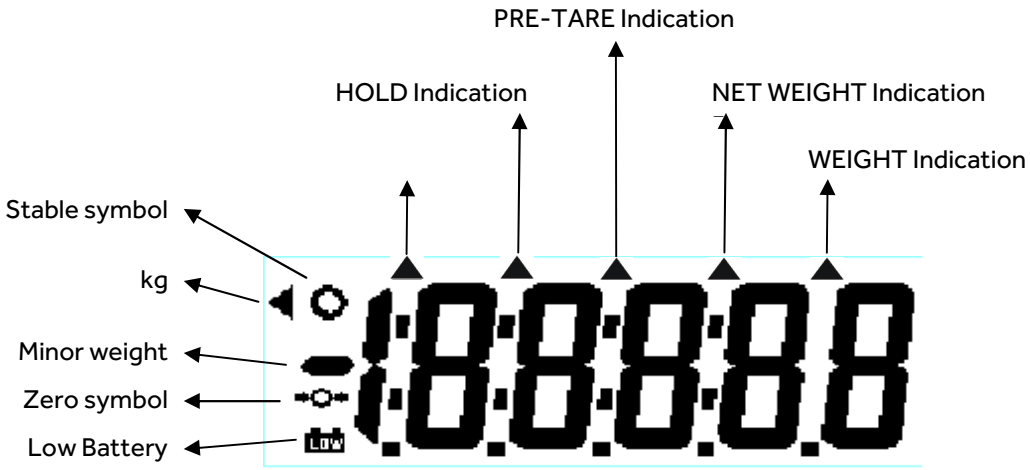
- Connect the equipment to the power supply using the AC adaptor.
- Press the ON/OFF button in the indicator.
- Wait until "0" appears on display.

3. OPERATION

Before reading detailed instructions on how to use all the weighing functions that are built into your scale, please read the following important guidelines:

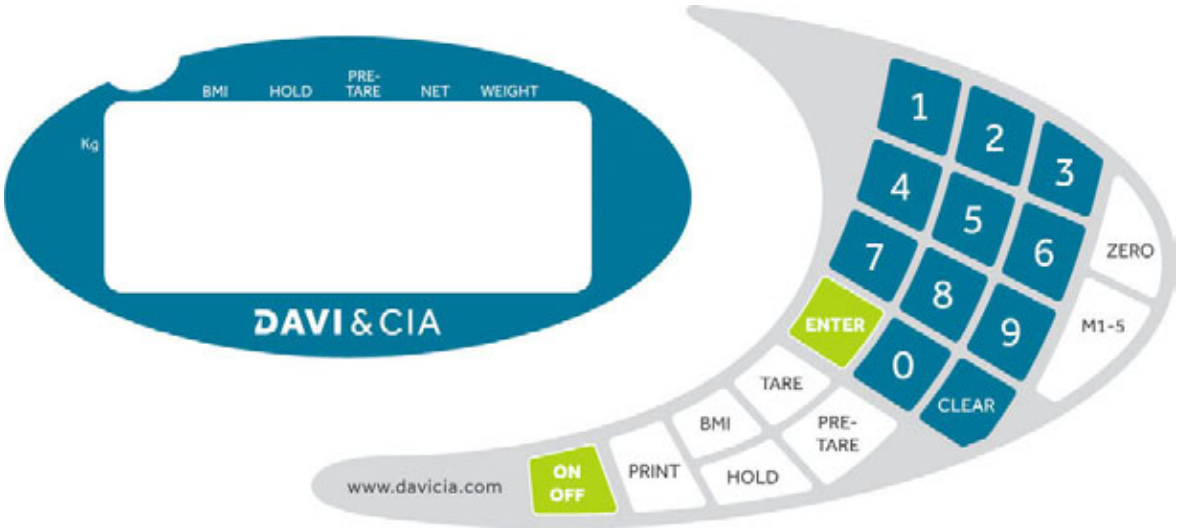
- Always be sure that the display shows `Zero` before use, if it does not then please press the ZERO key.
- The equipment is designed to detect when a stable weight is achieved, your reading should be taken at this point.

3.1. LCD SYMBOL DESCRIPTION



Display	Description
[→ 0 ←]	Zero symbol: If the scale does not show exactly zero value although the scale pan is unloaded, press the **[→0←]** key. After a short waiting time, the scale will be zeroed again.
○	Stable symbol: If the display shows the stabilization display [0], the scale is in the stable condition. When the scale is in the unstable condition, the stabilization display [0] disappears.
-	Minor weight: Weight under zero.
LOW	Low Battery: Battery need to change or replace.
BMI ▲	Calculated value of the body mass index (BMI).
HOLD ▲	Hold function / saving function is active.
PRE-TARE ▲	Initially set tare value is active.
NET ▲	The net weight is displayed.
WEIGHT ▲	The present weight value is displayed.

3.2. KEY FUNCTIONS



Designation	Function
ON/OFF-switch	Turn ON/OFF the scale
PRINT button	Data transmission via interface(Print-out the results)
BMI button	Determine Body Mass Index
HOLD button	To hold weighing result on the display / determine stable weighing value
ZERO setting key	To reset the display to 0.0kg display / Zero the scale (±2% of full capacity)
M1-5 button	To store 5 pre-tare values
PRE-TARE button	Setup target weight for tare before weighing
TARE button	Tare weight during weighing process
CLEAR button	To clear the wrong entry while entering digits
ENTER-key	To confirm the performing functions
Numeric keys	Numerical value Entering digits

3.3. WEIGHING

Switch on the scale with the **[ON/OFF]** key. The diagnostic scale self-check is performed and then the software version is displayed. The scale is ready for weighing when the "**0,00 kg**" weight display is shown.

*NOTE: If "0,00 kg" won't display on the screen, press **[→0←]** key to zero the scale, **[→0←]** can be used any time to zero the scale.*

Place a person in the middle of the scale. Wait until the stability display (o) is shown and then read the weighing result.

DIRECTION: If a person is heavier than the weighing range, the display will show the "Err" symbol (= overload).

3.4. TARING

Tare allows the user to zero the instrument to cancel the weight of a container/ clothes from the reading of the instrument, thus giving the true weight of the product/ person being tested.

- Turn on the scale using **[ON/OFF]** key.

- When"**0,00 kg**" displays on the screen and scale beeps twice, place the object (clothes) to be tared on the tray.
- Press **[TARE]** key after the weight stabilizes and stable sign appears on the display.
- Display will return to "**0,00 kg**"
- Place the item/ baby to be weighed (without removing the tare object). The weighing result is the Net weight of the item / baby.
- To delete the saved tare value, remove the tare object from the tread platform and press **[TARE]** key.

3.5. HOLD

The scale is provided with the integrated hold function (determination of average value). It enables people to be weighed accurately although they are not still on the scale plate.

NOTE: Determination of average value is not possible when a person moves too much.

- Switch on the scale with the **[ON/OFF]** key. The scale self-check diagnostic is performed. The scale is ready for weighing when the "**0,00 kg**" weight display is shown.
- Place a person in the centre of the scale plate.
- Press the **[HOLD]** key. When the triangle is flashing on the display, the scale takes some measuring values and then the calculated average value is displayed.
- Remove the object/ baby from the scale platform. The object/ baby's weight reading will remain on the display.
- Press the **[HOLD]** key again to return the scale to the normal weighing mode.
- HOLD function can be activated before or after putting the weight on the platform. In case of weighing babies that move a lot, it is recommended to press **[HOLD]** key before the person moves on the platform.

3.6. BODY MASS INDEX (BMI)

For BMI calculation, height is needed, therefore it is recommended to measure the height of subject before starting weighing procedure.

- Turn ON the scale using **[ON/OFF]** key.
- Proceed to weigh as normal.
- After the weight is stable and stable sign displays on the screen press **[BMI]** key.
- Display will change to "**0,00 kg**".
- Key-in the height of the person using numeric keys (0~9). Example: 186cm (the height should be in centimeters).
- Press **[ENTER]** to confirm, the Display will show the B.M.I. of the person.
- Press **[BMI]** again to return to normal mode.

Categories of BMI

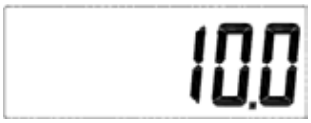
Classification of weight for adults over 18 years on the basis of Body Mass Index according to WHO, 2000 EK IV and WHO 2004 (WHO - World Health Organization).

Category	BMI (kg/m^2)	Risk of diseases accompanying overweight
Underweight	< 18.5	low
Normal weight	18.5 – 24.9	average
Overweight	≥ 25.0	
Preobesity	25.0 – 29.9	slightly increased
I degree of obesity	30.0 – 34.9	increased
II degree of obesity	35.0 – 39.9	high
III degree of obesity	≥ 40	very high

3.7. PRE-TARE

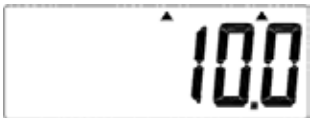
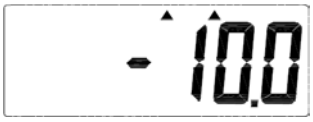
The scale can store 5 sets of pre-tare values, and there are two methods to store pre-tare value – Using Dead Weight or Enter weight using 0~9 keys:

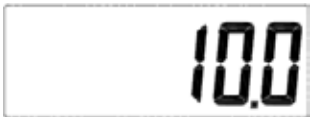
Using Dead Weight

Description	Example
Press M1-5 key after loading the weight; the display will show blinking m sign.	
Press numeral key 1 ~ 5 to assign the position to pre-tare weight. For example: Press 1 to assign position-1 to preset tare weight.	
The display will blink and makea beep sound.	

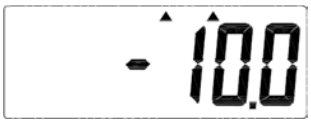
NOTE: You can assign any other position (from 1~5) to pre-tare weight.

Enter Weight Using 0-9 Keys

Description	Example
Press PRE-TARE key, and the extreme left digit will blink.	
Enter PRE-TARE weight using 0~9 keys. For example: 10kg	
Press ENTER key to confirm the pre-tare weight; the display will show the minus sign on left of the pre-tare weight value.	
Press M1-5 key; the blinking m sign will appear on the display.	
Press numeral key 1 ~ 5 to assign the position to pre-tare weight.	

The instrument will make flash and beep sound and will display the saved Pre-Tare Weight.	

Recall Pre-Tare Value:

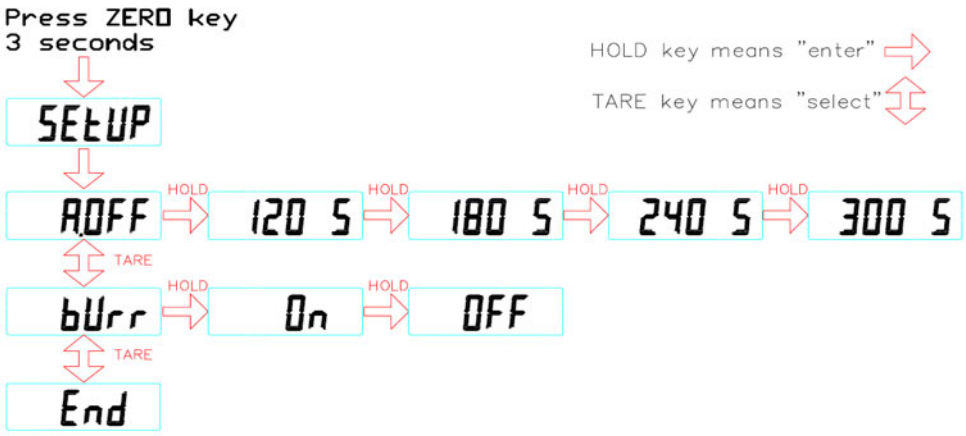
Description	**Example**
Long press PRE-TARE key for 3 seconds; the display will show the blinking m sign.	
Press numeral key 1 ~ 5 to choose pre-tare value	
Press ENTER key to confirm the pre-tare weight; the instrument will automatically perform tare function.	
Press PRE-TARE key to return to Normal Mode.	

4. SETUP

Switch ON the scale and long press **[ZERO]** key for 3 seconds. First "SETUP" and then "A.OFF" will display successively.

Auto-off time setup
This enables operator to select the auto turn OFF time of the device.
Auto off time: 120 sec/180 sec/240 sec/300 sec/Off

Buzzer on/off setup
This enables operator to select beep sound ON/OFF.
Buzzer: On/Off



NOTE: To confirm the settings, please press HOLD when "END" displays on the display.

4.1. CONNECTING WITH PC

The equipment can be connected to PC to transfer the weighing results.

1. Start Hyper Terminal
   Start Hyper Terminal program from clicking: Start Menu → Programs → Accessories → Communication → Hyper Terminal.

2. New Connection Description
   Give new connection a name then click OK.

3. Select Your COM Port
   Click Connect to select your COM port. Usually there's only one option for select. Then click OK.

4. Port Settings
   Click Bits per second to set up rate at 9600, Data bits at 8, Parity at None, Stop bits at 1 and Flow control at Hardware. Then click OK to complete your setting.

5. Output Data
   When the patient has been weighed and BMI calculated, simply press the PRINT key to output data from scale to PC or an Optional Printer.

Parameters of RS232 interface

Set parameters of the scale interface on the connected device. It is not possible to change the scale parameters.

- Baud rate: 9600 bps

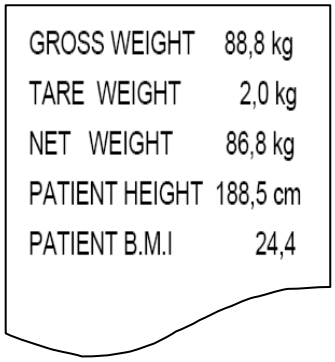
- Parity check: None
- Data length: 8 bits
- Stop bit: 1 bit
- Handshake: RTS/CTS
- Data code: ASCII.

4.2. PRINT FUNCTION

The Weighing, BMI and Height results can be printed-out for records using RS232 interface cable (included in accessory kit), which is connected with the round plug at the back terminal.

After weighing and calculating BMI simply press **PRINT** key to print out the results.

The format presented below is the standard format of results print-out and cannot be changed.



5. MAINTENANCE AND CLEANING

The scale does not require any routine maintenance. However, we recommend checking the scale's accuracy at regular intervals. The regularity of these checks is dependent on the level of use and the state of the scale.

- We would recommend using alcohol based wipes or similar when cleaning the scale.
- Please do not use large amounts of water when cleaning the scale as this will cause damage to the scale's electronics, you should also refrain from using corrosive liquids or high pressure washers.
- Always disconnect the scale from the main power supply before cleaning.

5.1. INSTRUCTIONS FOR CHARGE AND CONNECT

If "Lo" is displayed on the LCD, you should charge scale with AC adaptor.

Locate adaptor plug at the rear of indicator.

CAUTION: Always connect the AC adaptor to the indicator before connecting to the main power supply. Please disconnect the adaptor from main power supply before indicator.

5.2. INSTRUCTIONS FOR REPLACING BATTERIES

- Remove the battery cover
- Take the battery housing out
- Replace new batteries
- Make sure batteries are well installed
- Reinstall the battery housing

1. Reinstall the battery cover

5.3. ENVIRONMENTAL

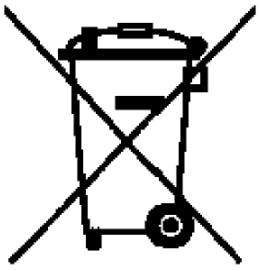
All batteries contain toxic compounds; disposal of batteries should be delegated to a competent organization, complying with the deposit of Poisonous Waste Regulation 1972.

Please do not incinerate batteries.

The optimum operating temperature for the scale is 5°C to +35°C; although it will operate at higher and lower temperatures the scale's battery life will adversely be affected.

5.4. EQUIPMENT DISPOSAL

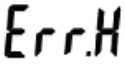
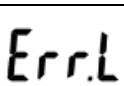
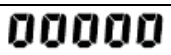
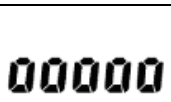
All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.



This crossed-out wheeled bin symbol on the product means the product is covered by the European Directive 2002/96/EC.

The correct disposal and separate collection of the equipment will help prevent potential negative consequences for the environment and human health. It is a precondition for reuse and recycling of used electrical and electronic equipment.

6. TROUBLESHOOTING

Error Message	Reason	Action
	Low Battery: This warning shows that the voltage of battery is too low to use	Please replace a new battery or plug the AC adaptor for operation
	Overload: The total load exceeds the maximum capacity of the scale	Please reduce the loading and try again
	Counting error (too high): Indicates that the signal from the load cell is too high	This error is normally caused by a serious fault on the scales such as faulty load cell or wiring. Please contact the local service representative.
	Counting error (too low): Indicates that the signal from the load cell is too low	This error is normally caused by a serious fault on the scales such as faulty load cell or wiring. Please contact the local service representative.
	Zero count over calibration zero range +10% while power on	Please recalibrate the instrument
	Zero count under calibration zero range -10% while power on	Please recalibrate the instrument
	EEPROM Error: Indicates that there is a fault with the scale's software	This error is normally caused by a serious fault on the scales such as faulty load cell or wiring. Please contact the local service representative.

7. HEIGHT ROD ACCESSORIES

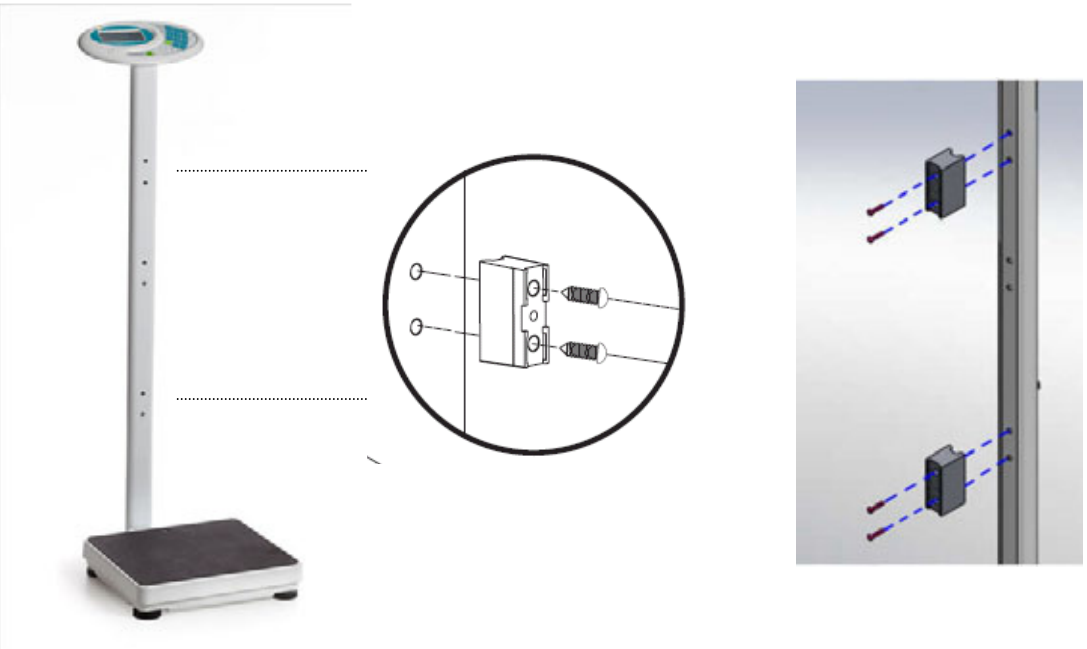
AC1200D

AC1200D is a digital height rod to be mounted on the scale with measuring range from 120~200cm. AC1200D have LCD display for convenient, accurate and quick height measurement. It can be connected with the scale indicator to transfer the height measurements directly, therefore while calculating BMI the users don't need to enter the height. Simply step on the weighing platform and as the weight stabilizes adjust the head piece to measure the height, the scale will display the height and BMI results.

AC1200M

AC1200M is a mechanical height rod to be mounted on the scale with measuring range of 120~200cm, AC1200M don't have LCD display, instead it automatically transfers the height measurement to weighing scale, therefore while calculating BMI the user don't need to enter the height. Simply step on the weighing platform and as the weight stabilizes adjust the head piece to measure the height, the scale will display the height and BMI results.
It can also be used as mechanical height measurement rod. For mechanical measurement range starts from 60~200cm making it an ideal measurement rod for measuring height of children and adults as well.

7.1. HEIGHT ROD ASSEMBLY



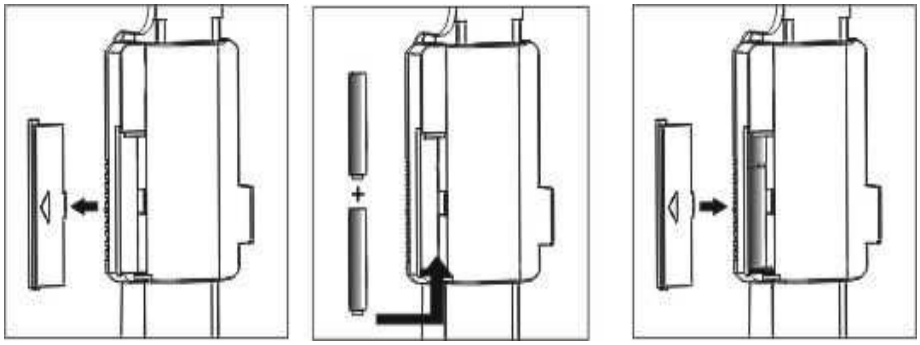
1. Fixing the bracket on the column of the scale using the screws provided with the height rod.

2. Extend the height measuring rod and tighten it in the bracket with the help of the appertaining screw.

7.2. BATTERY INSTALLATION

AC1200M don't need batteries to operate

AC1200D



a. Remove the battery cover at the rear of indicator.
b. Install 2-AAA size batteries.
c. Put the batter cover back.

WARNING: If the height rod is not in use for long time, take out the batteries and store them separately, in case of any leakage from battery would damage the measuring rod.

NOTE: When the new batteries have been installed, it is recommended to reset the height rod using reset key.

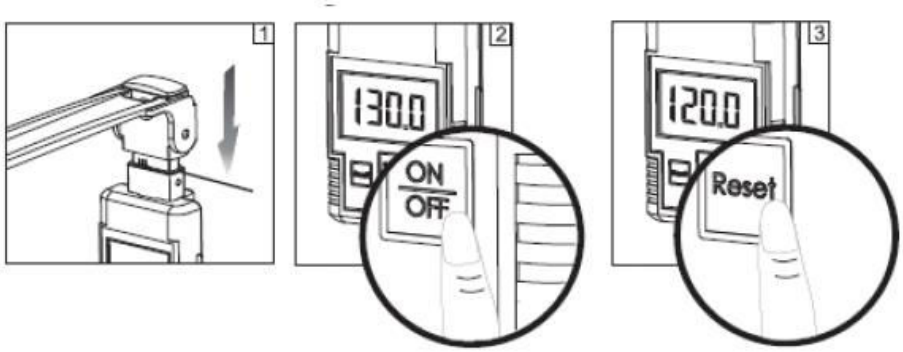
7.3. KEY FUNCTIONS

Keys	Description
ON/OFF	Press to switch on and off.
UNIT	To select the measurement unit between cm and inch.
HOLD	To enable value store function during measuring. Current height value of user will be stored and displayed. Press again to disable the function.
RESET	RESET key is for user to calibrate false reading. Slide right feet piece to the left at length of 35cm. Press RESET key to calibrate the height rod. LCD will display 35.0cm which means the height rod has been well calibrated.

7.4. CALIBRATING THE HEIGHT ROD

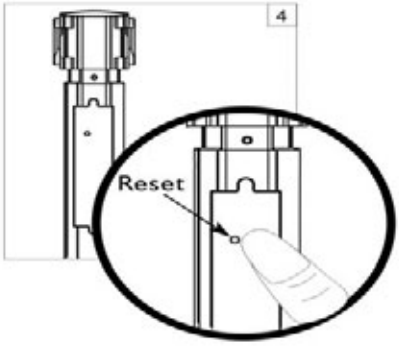
AC1200D

- Slide the measuring rod downward completely
- Turn ON AC1200D using ON/OFF key
- If the height display is not on '120cm', press Reset button to calibrate the height. It will be '120cm'



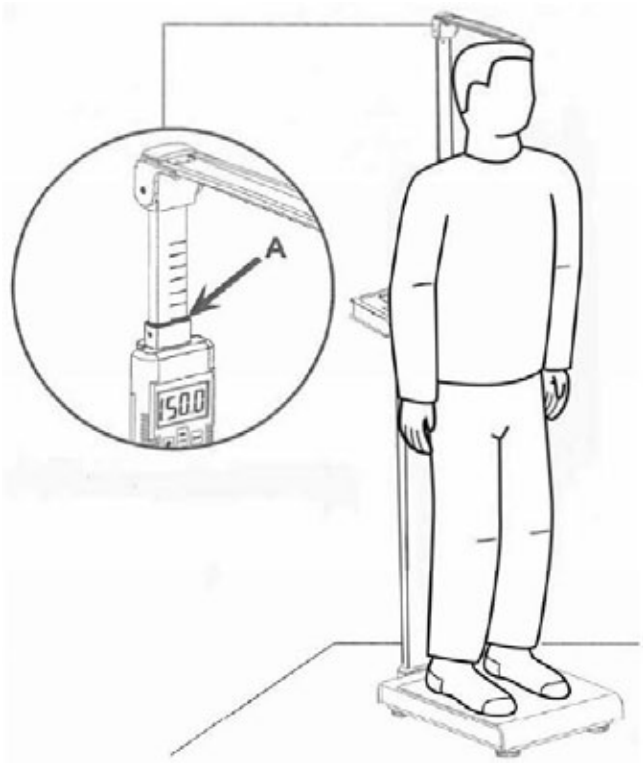
AC1200M

- Connect AC1200M with indicator
- Turn ON the scale by pressing ON/OFF key
- Press BMI key to check current height
- Slide the measuring rod downward completely
- If the height display is not '120cm', press Reset button to calibrate the height. It will be '120cm'



7.5. USING THE HEIGHT ROD

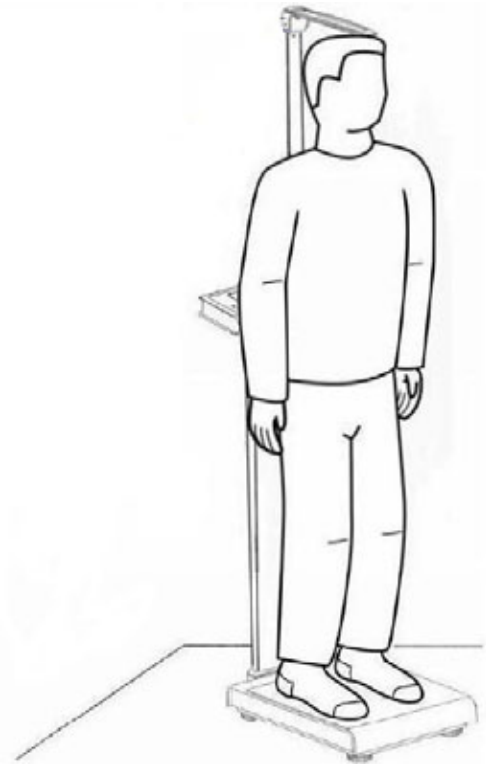
AC1200D



1. Slide up the measuring rod upward.
2. Slide down the head piece until slightly touches the head.
3. When the head piece touches the head of the person, display will show the exact height of the person.
4. To lock the height on the display, press HOLD key.
5. Press HOLD key again to disable the Hold function.

***Connecting USB wire to the scale will enable height transfer function. You can calculate BMI with height and weight taken by height rod and scale.

AC1200M

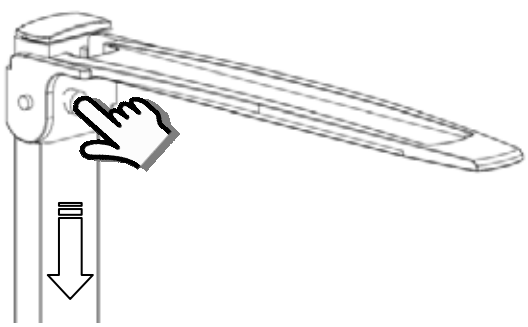


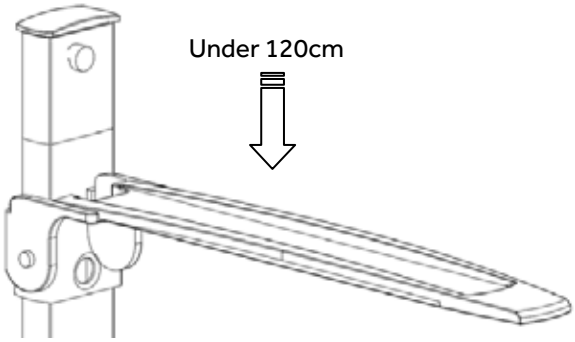
1. Slide the measuring rod upward.
2. Slide down the head piece until slightly touches the head.
3. When the head piece touches the head of the person, display will transfer height data to the scale.
4. You can use BMI functions of scale to recall and calculate BMI, weight and height.

***Connecting USB wire to the scale will enable height transfer function. You can calculate BMI with height and weight taken by height rod and scale.

Measuring height lower than 120 cm

Please use AC1200M as a mechanical height rod and press buckle as shown in the picture below and slide the head piece down.





7.7. TECHNICAL SPECIFICATIONS

Model	AC1200D	AC1200M
Type	Scale mounted digital height rod	
Keys	Hold, Reset, Unit	Reset Button
Measurement range	120~200cm	120~200cm (Digital measuring range)
		60~200cm (Mechanical measuring range)
Graduations	1mm	
Dimensions	40x30x1780mm	
Weight	0.85kg	
Power Supply	2 * AAA-size batteries	-
Temperature range	+10°C up to +40°C	

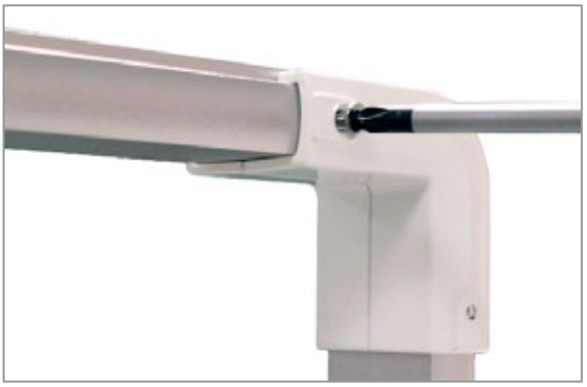
8. AUTOMATIC HEIGHT ROD ACCESSORIES

AC3200D

AC3200D is an automatic height rod to be mounted on the scale with measuring range from 0~200cm. AC3200D is connected with the scale indicator to transfer the height measurements directly, therefore while calculating BMI the users don't need to enter the height. Simply step on the weighing platform and as the weight stabilizes press a button to measure the height, the scale will display the height and BMI results.

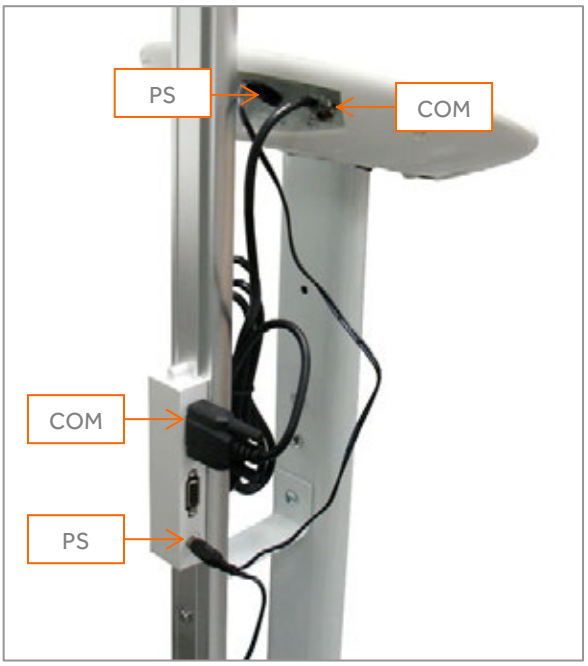
8.1. HEIGHT ROD ASSEMBLY

1. AC3200D is delivered with the top part loose and folded. Do not pull from this part as cables could get damaged.



2. Fix the top part of the height rod using the longest screw.

3. Fix the height rod to the scale by screwing the bracket to the column.



4. Connect the power supply cable (PS) to the height rod and the indicator, then to the socket.
Plug the communications cable (COM) both to the height rod and to the indicator.

8.2. USING THE HEIGHT ROD

Turn on the indicator by pressing the ON/OFF button. Do not step on the platform before "0.0" appears on display.

Step on the platform and wait for the *stable* (O) sign to appear on display. The scale will beep once.
Then, press the BMI button. Height will be automatically measured and shown on display.

NOTE: It is recommended that this action will be assisted, to ensure that the person on the platform is standing fully straight at the time of the measurement. Otherwise, the result may not be exact.

The result of the height and body mass index appear alternately on the screen.
To return to the scale to weight measurement, press the BMI button.

8.3. CONNECTING WITH PC

If you'd like to send the measurement results to a computer, plug in the PC communications cable to the height rod.

8.4. TECHNICAL SPECIFICATIONS

Model	AC3200D
Type	Scale mounted automatic height rod
Measurement range	0~200cm
Graduations	1mm
Dimensions	122x530x1630mm
Weight	1.4 kg

9. TECHNICAL SPECIFICATIONS

Model:	PS1300C
Capacity:	300 kg x 100 g
LCD Display:	1.0 inch LCD display with 5 and 1/2 digits
Max. external dimensions:	360 x 520 x 1020 mm
Power supply:	AC adapter 15V 300mA / Rechargeable Battery
Key Functions:	ON/OFF,ZERO, PRINT, BMI, HOLD, PRE-TARE,TARE, CLEAR, ENTER, 0~9, M1-5
Operation temperature:	5°C / 35°C

10. WARRANTY CERTIFICATE

We provide a **1-year** guarantee from the date of purchase. The guarantee covers manufacturing defects or defects occurring as a result of normal use and operation.

It excludes all removable parts such as batteries, wires, power supply devices, etc. Faults falling within the guarantee period shall be rectified free of charge upon presentation of the purchase receipt for the appliance. No other rights can be taken into consideration.

Return shipment is at the customer's expense if the appliance is anywhere other than at the customer's headquarters.

In the event of damage during shipment, guarantee rights will be granted only if the appliance is shipped in the original packaging. You are therefore recommended to keep the original packaging.

Following expiry of the guarantee period, all services requested will be dealt with by our specialist technicians at the user's expense.

11. CE DECLARATION OF CONFORMITY

CE DECLARATION OF CONFORMITY

FABRICANTE PRODUCTO: DAVI & CIA S.L.
PRODUCT MANUFACTURER:

DIRECCIÓN: C/ Murcia, 35, Nave G
ADDRESS Polígono Industrial Can Calderón
E08830 Sant Boi de Llobregat
BARCELONA - ESPAÑA

DECLARAN BAJO SU RESPONSABILIDAD QUE EL PRODUCTO:
DECLARE UNDER THEIR RESPONSIBILITY THAT THE PRODUCT

Marca ***Brand***	DAVI & CIA
Nombre ***Name***	PS1300C
Tipo ***Type***	EQUIPO ELECTRONICO Electronic equipment
Finalidad Prevista ***Intended Use***	Equipo pesapersonas. Weighing equipment.

CUMPLE LOS REQUISITOS DE LAS DIRECTIVAS:
CONFORMS WITH THE REQUISITES OF THE DIRECTIVES

EC Directive 2004/108/EC	Directiva de Compatibilidad Electromagnética *(Electromagnetic Compatibility Directive)*
EC Directive 2006/95/EC	Directiva de Baja tensión (*Low Voltaje Directive).*
EC Directive 93/42/EEC	Aplicable únicamente a las básculas con aprobación médica *(Applies only to scales with medical approval).* AC1200D y AC1200M cumplen con la Directiva 93/42/EEC: Clase I *(AC1200D and AC1200M are in accordance with Directive 93/42/EEC: Class I)*

FECHA: 12 de Diciembre de 2010 ***DATE:*** 12th *December 2010*

Nombre: ***Name***	J.Masana
Firmado: ***Signed***	
Cargo: ***Function***	**Gerente** DAVI & CIA

This manual and other support documents are available on the web

www.davicia.com

DAVI & CIA

C/ Murcia, 35 Nave G Pol.industrial Can Calderón. Tel. +34 93 654 32 32 info@davicia.com
E 08830 Sant Boi de Llobregat. Barcelona. Spain Fax. +34 93 654 16 62 www.davicia.com